Chapter Twenty-two

PROJECT DEVELOPMENT

BUREAU OF LOCAL ROADS AND STREETS MANUAL

Chapter Twenty-two
PROJECT DEVELOPMENT - Federal Funds

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22-1 COORDINATION

22-1.01 Airports/Railroads/Utilities

22-1.01(a) Airport Coordination

Highway and bridge improvements within 2 miles (3.2 km) of publicly owned airports, within 1 mile (1.6 km) of privately owned airports open to the public, and within 0.5 miles (0.8 km) of restricted-landing areas require coordination with the IDOT Division of Aeronautics. These coordination requirements concerning distance to an airport are in conjunction with height obstructions of 15 ft (4.6 m) or more above the roadway. In addition, the local agency must coordinate with the Division of Aeronautics for all realignments and construction improvements on new location regardless of the height of obstruction. Section 10-2.01(e) further discusses coordination requirements near airports.

22-1.01(b) Railroad Coordination

When a project is involved with an at-grade railroad grade crossing or grade separation, coordination with the affected railroad should take place at an early stage to determine if any improvement is necessary to the railroad facility and to determine funding responsibilities for the improvement. Section 10-2.01(f) discusses coordination requirements with railroads.

22-1.01(c) Procedure for Joint State-Local Agency Railroad Improvements

Where IDOT will be responsible for letting a roadway project with a railroad crossing, the local agency must coordinate with the district during the project's initiation. The railroad-crossing portion of the project generally should be programmed as separate project. These projects must be identified and included in the district's annual program when the original program is developed. Crossing projects will generally be authorized much earlier than the roadway project due to the time required for the railroad to process the agreement and for the railroad to perform the work in a timely manner. IDOT will be responsible for the following:

1. Districts. The district will conduct the following:

    - Identify the need for railroads to adjust or alter their facilities when preparing original program submissions.

- Submit the railroad work as a separate project in the program submission. It may be necessary to program the railroad work in the year preceding the roadway project.
- As soon as the work is identified, prepare a railroad agreement and forward it to the railroad and the appropriate local agency with a copy to the Central BLRS. Correspondence with the railroad should indicate the proposed letting schedule. If questions occur during the preparation of the agreement, contact the Central BLRS.
- Submit a project status sheet requesting authorization of the railroad work.
- Cross-reference the roadway and railroad projects in the data base so that both projects can be coordinated and tracked.
- Obtain signed railroad agreements from the railroad and local agency along with a copy of a detailed estimates and general layout plan and forward them to the Central BLRS for execution.
- Upon execution of the agreement, the Central BLRS will notify the railroad to proceed with the ordering of materials and scheduling of the work.

2. Central BLRS. The Central BLRS will conduct the following:

- Upon approval of the Project Development Report for the roadway work, remind the district that the railroad work must be coordinated early.
- Review each district's annual program to ensure all roadway projects with railroad involvement that the railroad portion is programmed as a separate project.
- If not already prepared, request the district to prepare a railroad agreement.
- Check the project status sheets to ensure all necessary railroad agreements have been executed and that the programming and authorization have been accomplished. Projects involving railroad-crossing work will not be advanced to letting without a fully executed railroad agreement.

Occasionally a signal/circuitry project may require a nearby crossing to also be upgraded. The district and Bureau of Program Development will be responsible for coordinating the designs between the crossings.

Where an IDOT project will affect a local crossing, the district should contact the Central BLRS to determine if Grade Crossing Protection Funds may be eligible for the local crossing; see Section 10-2.01(f). Where a local project affects a State highway crossing, Federal safety funds set aside for local improvements or Grade Crossing Protection Funds may be eligible for work on the State highway crossing.

22-1.02 District Coordination Meetings

The district conducts periodic coordination meetings, which involve personnel from the central bureaus, FHWA, and may involve personnel from other agencies, as appropriate. The goal is to coordinate planning; identify social, economic, and environmental impacts; minimize these impacts through mitigation; and develop the best overall solution to satisfy the transportation needs. The FHWA will normally approve the processing of projects as Categorical Exclusions. The coordination meetings may also result in field approvals of design variances and Project Development Reports.

22-1.02(a) Scheduling Coordination Meetings

Coordination meetings are regularly scheduled on a monthly basis in District One and bi-monthly in the other districts. BDE will develop an annual coordination meeting schedule in cooperation with the districts, Central BLRS, and FHWA to eliminate meeting conflicts and to allow appropriate central office personnel to be available. In addition, the district may schedule special coordination meetings on an as needed basis. The local agency should complete reports eligible for field approval prior to coordination meetings to minimize project delays and transmittals to the Central BLRS. The local agency should contact the district to schedule a project for discussion at a coordination meeting. A tentative agenda should be distributed at least 2 weeks in advance of each meeting along with the initial coordination meeting data sheet (Form BLR 22410).

22-1.02(b) Appropriate Representation

The local agency and/or its consultant, when applicable, should be present. Ensure the persons are invited to the meetings who have a role in project development and decision making (e.g., BDE environmental specialists, district specialists).

If projects that are to be discussed significantly will affect other agencies or require special expertise or coordination, the district should invite the applicable agencies to the coordination meeting. Discuss this need with the appropriate Project Development Engineer in the Central BLRS. Highlight the projects and issues requiring the expertise of the other agencies in the invitations and agendas. State agencies (e.g., Illinois Department of Natural Resources, Illinois Historic Preservation Agency, Illinois Department of Agriculture, Illinois Environmental Protection Agency) and Federal agencies (e.g., Department of the Interior, Army Corps of Engineers) are frequently involved.

22-1.02(c) Topics for Discussion

Coordination meetings should address all necessary topics such as logical termini, environmental reports, special reports, commitments, public involvement requirements, typical sections, and design exceptions. The scoping of environmental issues is an appropriate topic

for coordination meetings. When other agencies are present, the coordination meeting may serve as the scoping meeting.

The local agency should complete Form BLR 22410 for each scheduled project and send it to the district. The district should transmit an agenda, with a completed Form BLR 22410 attached for each project, to the intended participants at least 2 weeks prior to the meeting. Include all necessary documentation with the agenda to support the desired action for specific projects.

22-1.02(d) Information Presented

The information presented at a coordination meeting usually depends on the following issues:

- the scope of the project,
- the project development stage, and
- coverage at previous coordination meetings.

A major project on new alignment may involve many topics and presentations at numerous meetings over the duration of the study. If a minor project requires discussion, a brief presentation may be sufficient.

If a project has been discussed at a previous coordination meeting, information that has been previously presented and discussed need not be repeated. However, the meeting should include a brief summary of important points previously discussed and any decisions reached on each project. Attach copies of the minutes from previous meetings to the agenda.

If design exceptions are requested, include Form BLR 22120 and provide supporting documentation/justification. The supporting documentation/justification for design exceptions ultimately will be included in the Project Development Report.

The local agency/consultant should also make available appropriate information on the mitigation of impacts, effects on sensitive areas, detours, and stream crossings.

22-1.02(e) Documentation

At all coordination meetings, the local agency or their consultant must maintain a record of who attended and what transpired. Although a verbatim transcript is not necessary for coordination meetings, a recording on tape may be useful if questions arise on the accuracy of typed minutes. The local agency or their consultant should prepare minutes promptly and send them to the district. The district will submit the minutes to the Central BLRS for review. The FHWA will also be required to review the minutes. After the corrections are made, the local agency will send the minutes to all agencies and individuals that were in attendance.

The suggested format for the coordination meeting minutes is shown in Figure 22-1A. Identify each project discussed in the minutes, and provide special attention to any scoping actions because documentation may be required later. Each project should be covered on a separate page. Attach Form BLR 22410 and/or Form BLR 22120 to the minutes.

22-1.02(f) Recommended Practices

The following practices are recommended for coordination meetings to improve their effectiveness:

- Provide the FHWA and Central BLRS an agenda with a completed Form BLR 22410 for each project, at least 2 weeks in advance of the meeting.
- Use video-teleconference for meetings with minor discussion items.
- Allow time for projects eligible for field approval prior to or after the regular meeting. Indicate the schedule in the agenda and provide appropriate information for action in advance.
- Schedule separate meetings for large or complex project issues, including the review of report comments.
- Resolve minor issues over the phone or between the district and the local agency.
- Keep the discussion focused on the desired action.
- Use slides, photographs, aerial photos, and other visual exhibits to clarify issues.
- Provide appropriate handouts (e.g., location maps, ADT/DHV schematics, typical section drawings, crash history information, synopsis of environmental issues, critical path items).
- Submit completed forms for Nationwide Section 404 Permit 23 to BLRS/FHWA prior to the coordination meeting.
- Provide draft meeting minutes to the districts within 5 working days of the meeting and the final minutes to participants within 2 weeks after receipt of comments on the draft.

MINUTES OF COORDINATION MEETING
(separate sheet for each project)

DISTRICT #

(date)

LOCAL AGENCY

SECTION NUMBER

ATTENDANCE

- Federal Agencies
- State Agencies
- Local Agencies
- FHWA
- IDOT Central Office
- BLRS Central Office
- District Office

TOPICS

- Information presented (e.g., environmental surveys, impacts, mitigation).
- Comments and input received, including scoping actions/information (see Section 18-5.01(b)).
- Design exceptions presented and action taken.
- Environmental report concurrence.
- Attach Forms BLR 22410 and BLR 22120, as applicable.

EXAMPLE COORDINATION MEETING MINUTES

Figure 22-1A

22-2 PROJECT STUDIES/REPORTS

Section 22-2 provides guidance for the preparation of various project studies and reports for Federal-aid local agency projects. The various reports and studies discussed in this Section are written summaries of design issues concerning a highway improvement. This Section pertains to procedural aspects involved in the completion of these studies and reports up to and including design approval. Chapters 11 and 12 of the *BDE Manual* provide additional guidance on studies and reports required for Federal projects.

22-2.01 General

The development of a Federal project requires the preparation of various studies and reports. This necessitates an integrated engineering analysis to determine highway improvement needs. The scope and depth of the engineering analyses for preliminary studies will vary depending on the project scope of work. These studies may be less than that required for final plans, but they should be sufficiently accurate to preclude significant design or major cost estimate revisions during final construction plan preparation. When determining the scope, extent, and accuracy needed for a specific engineering study, the effects on adjacent property owners are often a good indicator.

To properly conduct engineering analyses and to develop a functional design, diverse sources of information must be used. Data for engineering analyses may be obtained from various sources. It is important that the designer be familiar with data available from outside sources and understands how to use it correctly in engineering analyses. Also, the designer must ensure that the scope, extent, and accuracy of the data requested from other sources are commensurate with the intended use of the engineering analysis being performed.

22-2.02 Information Sources

Engineering investigations determine if the proposed highway improvement satisfies the need for safe, economical, and efficient transportation and provides other relevant benefits (e.g., traffic benefits, public services, reduction of crashes, pedestrian facilities, transit considerations). The following Sections identify informational sources that are important in establishing the need for the highway improvement.

22-2.02(a) Functional Classification

The Office of Planning and Programming (OPP) is responsible for functionally classifying all roads and streets. For information on functional classification, see the OPP publications *Functional Classification, Federal-aid Systems, and Urban Area Boundaries Procedural Manual* and the *Federal-aid System and Five Year Classification Maps*.

22-2.02(b) Highway Data Bank

OPP is responsible for maintaining the Illinois Roadway Information System (IRIS) and Illinois Structure Inventory System (ISIS). OPP can provide computer-generated route log listings for State routes and local roads and streets. The available data is dependent on the highway system. The following major items may be available:

- administrative classification;
- physical dimensions;
- roadway characteristics;
- traffic data;
- geometric data;
- pavement cross sections, surface type, drainage, and shoulder conditions; and
- bridge inspection and appraisal data.

A complete listing of items is shown in the indices of the *IDOT Roadway Information and Procedure Manual* and the *IDOT Structure Inventory and Procedure Manual*.

22-2.02(c) Urban Transportation Planning

The urban transportation planning process discussed in Chapter 17 produces information on local governmental functions in urbanized areas of over 50,000 inhabitants. The Metropolitan Planning Organizations (MPO) administer a continuing, cooperative, and comprehensive transportation planning process that results in transportation improvement plans and programs consistent with the planned development of the urbanized areas. This process determines the transportation modal choice. In urbanized areas, the project must be consistent with local transportation planning. Major urban improvements must meet joint FHWA/FTA regulations for major highway improvements in urban areas. The urban transportation planning process also can provide other social, economic, environmental, and engineering information for preliminary studies.

22-2.02(d) Current and Projected Traffic Volumes

Under the general guidance of OPP, the districts count and classify existing traffic volumes on the State highway system and some local roads and streets. OPP also maintains data used to project future traffic volumes (e.g., annual traffic growth factors). The following traffic data may be available from the district:

- current hourly and daily traffic volumes,
- current turning movement volumes,

- traffic projections and assignments for new facilities, and
- traffic projections for future design years on existing facilities.

Similar data, developed in conjunction with the Urban Transportation Planning Process, also may be available from the MPOs. Because the design of a project is greatly dependent upon the projected design hourly volumes, these figures must be carefully examined and questioned before using for design purposes. Improper traffic projections can result in the construction of unnecessary or inadequate highway improvements.

22-2.02(e) Crash and Skid Reduction Analyses

During the preliminary study, identify High-Accident Locations (HAL), rates, and all crash patterns (e.g., fixed objects) at various sites throughout the project. The Division of Traffic Safety regularly furnishes the district with crash information and provides crash information upon request. The following is a partial listing of available crash information:

- collision diagram printouts for roads and streets on the local system when the local agency is part of the Local Accident Reference System and for intersections with State highways. Collision diagram computer plots may also be requested for intersections;
- individual crash reports for above locations, upon request from a microfilm or imaging retrieval system;
- State highway HAL maps and computer-generated listings that report supplemental data for high-crash spots and roadway sections;
- wet-pavement crash cluster sites for State highways (computer-generated listings);
- county crash summaries;
- municipal crash summaries;
- Statewide average crash rates, distributed annually, for comparison with existing project crash rates for proposed improvement justification; and/or
- summaries of Motor Vehicle Traffic Crashes and Statewide average percentages by type of collision, light condition, and road surface. These percentages may be compared with project percentages from collision diagram summary sheets to help identify over-represented crash patterns.

22-2.03 Geometric Design Criteria

Part IV, Project Design, of this *Manual* presents the recommended geometric design criteria for the different types of highways. This is an important element for all preliminary studies. The following briefly summarizes the information provided in Part IV:

1. Basic Design Controls. Chapter 27 discusses the design controls that have an overall impact on the geometric design of a highway facility. As discussed in Chapter 27 and, as appropriate, the designer should evaluate the following:

   a. Project Scope of Work. The project scope of work will determine the type of design criteria to be used. Section 27-2 defines the project scope of work for new construction, reconstruction, and 3R type projects. Chapter 32 presents the design criteria that apply to new construction/reconstruction projects. For these projects, the designer often has the liberty of designing the highway to meet the most desirable criteria. However, available finances do not always permit the reconstruction of existing highways to this level. The geometric design of projects on existing highways must be viewed from a different perspective. These projects are often initiated for reasons other than geometric design deficiencies (e.g., pavement deterioration, crashes), and they often must be designed within existing right-of-way, financial limitations, and/or environmental constraints. As a result, the design criteria for new construction and reconstruction are often not attainable without major cost and, frequently, adverse impacts. At the same time, the local agency must make cost-effective and practical improvements to existing highways and streets. For these reasons, the separate geometric design guidelines for 3R projects on existing highways are provided in Chapter 33.

   b. Functional Classification. Section 27-3 discusses the application of the functional classification system in Illinois for geometric design applications. All highway improvements must be compatible with the functional classification of the highway under design. A highway's functional classification is an important factor in determining which design policies and criteria to use.

   c. Design Speed. This is a critical highway design element and is therefore selected before initiating any studies. Section 27-5.02 discusses the overall philosophy in design speed selection. Chapters 32 and 33 present specific numerical criteria for project design speed based on functional classification, highway type, urban/rural location, and project scope of work.

   d. Traffic Volume Analysis. Section 27-6 provides definitions for highway capacity terms, selection of the design year, and design hourly volume for highway capacity analyses. It references the *Highway Capacity Manual* for detailed highway capacity techniques.

2. Sight Distances. Chapter 28 presents the criteria for sight distances based on design speed. Stopping sight distance (SSD) is a determining factor in an acceptable highway design, especially for vertical alignment. Other sight distances which may be applicable include intersection sight distance and passing sight distance.

3. Horizontal Alignment. Chapter 29 discusses horizontal alignment for new construction/ reconstruction projects (e.g., minimum radii, superelevation, horizontal sight distance).

4. Vertical Alignment. Chapter 30 discusses maximum and minimum grades, vertical alignment, and vertical clearances for new construction/ reconstruction projects.

5. Cross Section Elements. Chapter 31 presents the general criteria for cross section elements, and Chapters 32 and 33 present specific numerical criteria for cross sections based on the highway type, design speed, traffic volumes, urban/rural location, and project scope of work. The designer must review the cross section criteria in these Chapters and determine the most appropriate design for the given conditions. The selected roadway cross section should be based on the type of operations and maximum allowable design speed, and will be a factor in determining the right-of-way needs of a highway facility. The proposed typical section should identify:

   - the number and width of travel lanes;
   - the selection of an urban (curbed) or rural section;
   - the shoulder width, if applicable;
   - the gutter width, if applicable;
   - cross slopes;
   - the type and width of median;
   - parking lanes, if applicable;
   - sidewalks and bike lanes/paths, if applicable;
   - side slope configuration (i.e., fill slopes, cut slopes, roadside ditches); and
   - type of pavement.

6. Intersections. Chapter 34 presents IDOT's criteria for the design of intersections.

7. Roadside Safety. Chapter 35 presents the criteria for roadside safety, including clear zones, barrier warrants, barrier design and layout, impact attenuators, and glare screens. Most of the information in Chapter 35 is applicable to the detailed design completed during the development of the final plans.

22-2.04 Environmental Issues

During project development, it is important for the designer to understand the environmental issues that may impact the project. Environmental reviews can be a significant portion of project development and project schedules can be greatly affected. For detailed information on environmental procedures, see Chapters 10, 18, 19, and 20.

22-2.05 Highway Capacity Studies

22-2.05(a) General

The desired level of service (LOS) (i.e., mobility and freedom from delay and congestion) for a highway is determined by its functional classification and urban/rural location. The tables of geometric design criteria in Chapter 32 present the recommended minimum LOS criteria for each functional class.

22-2.05(b) Responsibility

For local agency projects, the local agency or its consultant is responsible for conducting the capacity analysis. The District Geometric Engineer may be available as a resource to the local agency to assist in capacity analyses. The results are reviewed by the district before submission to Central BLRS.

22-2.05(c) Roadway Mainline Analysis

The following presents the simplified procedure for conducting a capacity analysis for the roadway mainline:

1. Select the design year; see Section 27-6.02.

2. Determine the DHV; see Section 27-6.03.

3. Select the level of service; see Chapter 32 or Chapter 33.

4. Document the proposed roadway geometric design (e.g., lane width, number and width of approach lanes at intersections).

5. Using the *Highway Capacity Manual*, analyze the capacity of the roadway element for the proposed design:

    - determine the maximum flow rate under ideal conditions;
    - adjust the maximum flow rate for prevailing roadway, traffic, and traffic conditions; and
    - calculate the service flow rate for the selected level of service.

6. Compare the calculated service flow rate to the DHV. If the DHV is less than or equal to the service flow rate, the proposed design will meet the objectives of the capacity analysis. If the DHV exceeds the service flow rate, the proposed design may need further evaluation. The designer should either adjust the roadway design or adjust one of the capacity elements (e.g., the selected design year, level-of-service goal).

22-2.05(d) Intersection Design Studies

An intersection design study (IDS) is a graphic representation of a proposed treatment for the development or improvement of an intersection facility. It is based on an analysis of traffic needs and an evaluation of physical and economic elements at the intersection site. Section 10-2.02 provides guidelines for when an IDS should be prepared. Chapter 14 of the *BDE Manual* provides guidelines for the preparation of an IDS and the data that is required to be documented. Chapter 34 provides the design criteria for intersections.

IDS's for Federally funded projects will be submitted to the district for review. For intersections with State highways, the District Geometric Engineer will review the design to the extent appropriate and, if necessary, will obtain any approvals of exceptions to the geometric policies affecting the State highway from BDE before concurring with the design. The district may also submit a preliminary copy of the IDS to the Central BLRS.

22-2.06 Bridge Condition/Hydraulic Reports

22-2.06(a) Bridge Condition Report

The Bridge Condition Report (BCR) summarizes the findings of the investigation of a bridge and its components. It is used to establish the scope of work on the extent of repair, replacement (partial or total), and widening or other improvements. The BCR allows the local agency and IDOT to determine the most cost-effective method of correcting the reported structural, geometric, or hydraulic deficiencies, and for restoring a bridge to a structurally adequate and functionally serviceable condition.

An abbreviated BCR may be used for structure replacements.

An in-depth BCR is required for all rehabilitation and widening projects for which a Preliminary Bridge Design and Hydraulic Report must be submitted for IDOT approval. All rehabilitation and widening projects require an in-depth report including color photos. The following items are necessary in an in-depth report:

1. Introduction. The introduction should provide the reason for the report.

2. Administrative and Geographical Information. The report should include detailed administrative and geographical information (e.g., facility carried, feature crossed, age of bridge).

3. Inspection Information. Include what type of inspection was performed (e.g., visual, testing type, equipment), results of inspection, degree of impairment to structure, and any structural deficiencies.

4. Description. The report should include a description of the physical condition of the bridge and the deficiencies that require correction.

5. Verification. The ability and capacity of the existing structure for reuse should be verified and documented.

6. Recommendations. Note all recommended repairs and any methods of repair.

7. Justification. Provide justification for any proposed work.

8. Photos. Include color photos of deficient areas.

9. Master Structure Report (S-107). This report is output from the Structure Information Management System (SIMS). The current Report S-107 should also be included with the BCR.

For structures on 3R projects that do not require any rehabilitation, provide a description of the structures as described in the Master Structure Report. These structures should be in good condition. A formal BCR will not be required for these structures.

When the scope of the anticipated rehabilitation work is limited to the bridge deck and minor structural repairs without need for a widening or replacement, only the preparation of a Bridge Condition Report for Deck Repair is required. Because the geometrics of the structure will not be altered, this type of work normally will not require a Type, Size, and Location (TS&L) submittal as discussed in Section 10-2.03(b).

Submit the BCR to the district. The district will forward the BCR to the Local Bridge Unit in the Bureau of Bridges and Structures for review and approval. The BCR must be approved prior to or with the approval of the Preliminary Bridge Design and Hydraulic Report.

22-2.06(b) Preliminary Bridge Design and Hydraulic Report

The Preliminary Bridge Design and Hydraulic Report (PBDHR) (Form BLR 10210) contains the necessary information for use by IDOT personnel in reviewing the preliminary bridge design and processing the hydraulic reports for local agency bridge and culvert construction projects. See Section 10-2.03(b) for guidance on preparing a PBDHR.

22-2.07 Hydraulic (Drainage) Studies

The roadway alignment is dependent on the interrelationships of several variables, including suitable stream crossing locations. The gradeline is directly influenced by high-water elevations at stream crossings, and the depth of roadway ditch flow for surface drainage. Hydraulic structure sizes and storm sewer systems may significantly affect project cost estimates. For these and other reasons associated with drainage controls, a drainage study containing preliminary hydrologic and hydraulic analyses should be prepared where highway drainage and/or structures will significantly affect the design or cost of a project.

Where hydraulic structure sizes can affect the selection of alignments or grades, the local agency should perform a detailed hydraulic analysis. Rehabilitations that have no history of flooding or high water problems may be handled with detailed hydraulic computations to be completed in the design phase. Rehabilitations that have experienced hydraulic problems (e.g., severe scour, inundation, debris) will require a detailed hydraulic analysis during the preliminary study phase, as results may influence the scope of work.

Assessment of flood damage potential during location studies will include inspection of IDNR Office of Water Resources Regulatory Flood Plain Maps, Federal Insurance Administration Flood Hazard Boundary Maps, and/or Flood Insurance Rate Maps to determine if a proposed flood plain encroachment or hydraulic modification is within a special flood hazard area. Section 20-7 discusses the requirements that apply to Federally funded/regulated projects when the project will involve a flood plain encroachment. Compliance with local agency flood regulations should also be discussed. Proposals to mitigate adverse effects and to resolve conflicts may also be described.

In addition to recommended improvements to hydraulic structures, the local agency should analyze and describe other proposed hydraulic improvements or modifications (e.g., unavoidable channel changes; the conversion of open ditches to storm sewer systems, including suitability of outfalls; pumping stations; detention facilities; highway embankments, including those parallel to stream flow; other flood plain encroachments). Analyses should include planning for future land use changes and development that could influence runoff rates and rural/urban cross section selections. Discuss the effects of restricted outlets, existing storm sewer capacities, and drainage constrictions (upstream or downstream) on highway drainage systems, particularly in rapidly developing urban areas.

A summary of the hydraulic design for each project will be prepared and submitted to the district for review. See Chapter 36 for culvert designs and Chapter 38 for storm sewer designs. The hydraulic design summary should include the following:

- the set of plans or a sketch showing the outline of the proposed drainage system for storm sewers, culverts, ditches, etc.; and
- design computations that include criteria and procedures used, assumptions made with verification of those assumptions, and a listing of design variances.

For additional guidance on hydraulic and drainage design issues, see Chapter 38 of this *Manual*, the *IDOT Drainage Manual*, and the *IDOT Water Quality Manual*.

22-2.08 Geotechnical Reports/Pavement Design

The purpose for a Geotechnical Report is to provide insight into area geology, pedology, and other engineering factors to be used by the designer. If soil stability problems are anticipated, a preliminary Geotechnical Report should be prepared during the preliminary study phase. Information on the geotechnical reports can be found in *IDOT Geotechnical Manual.* While a

final pavement design is usually not needed until plan preparation, a determination of pavement type and approximate thickness may be needed during the preliminary study phase. Chapter 37 discusses pavement design procedures and when a Geotechnical Report is required.

22-2.09 Commitments

22-2.09(a) Definitions

The following definitions apply:

1. Commitment. A commitment is a documented obligation or promise made by a properly authorized representative of the local agency for carrying out a specific action or actions affecting the planning, design, land acquisition, construction, or operation of a highway project that involves special consideration and action. Note that statements in the Project Development Report and/or environmental reports to the effect that adverse impacts to wetlands or other sensitive resources will be avoided, minimized, or mitigated, will create an obligation to take specific actions (i.e., to follow-up on avoiding, minimizing, and mitigating impact) and should therefore be treated as commitments.

2. Commitment List. This is a cumulative list of commitments that states the date, a brief description of the commitment, who made the commitment, and when it was completed. This list is initiated during the Phase I study, included in the plan submittal, discussed at the pre-construction meeting, and checked during the final inspection of the project.

3. Commitment File. This is a file created by the local agency and maintained by both the local agency and district for each project. The file should include a commitment list, information on the nature of each commitment, the date when the commitment was made, the parties affected, permits or environmental clearances, and documentation showing that the commitment has been fulfilled. A commitment file must be kept for all Federal and State-funded local projects. These commitments may include:

    - funding arrangements between the FHWA, IDOT, local agencies, and/or developers, which may include construction costs, signal maintenance, lighting agreements, etc.;
    - notification requirements to IDOT, public agencies, owners, local officials, etc., prior to construction;
    - requests for verification of the area to be disturbed by the project;
    - commitments to owners, IDOT, and/or other public agencies for plant replacement, removal, or retainage (e.g., trees, shrubs, wetland plants);
    - environmental commitments to IDOT, other public agencies, and/or other groups (e.g., wetland replacement, hazardous material removal);
    - relocation, removal, or replacement agreements/requests for existing buildings;

- drainage agreements, including detention areas, culvert locations, ditch construction, etc.;
- relocation, rebuilding, addition, or removal agreements/requests for private and commercial entrances;
- special construction requests (e.g., timing of construction, type of construction, limits of construction);
- existing sign removal and replacement; and/or
- any other special agreements made between the local agency and land owners during right-of-way negotiations.

22-2.09(b) Procedures

The local agency is responsible for maintaining the commitment file and ensuring that these commitments are incorporated into the final plans and agreements. The following procedures will apply:

1. Recording Comments. Commitments can occur early in the design (e.g., Environmental Survey Request, Project Development Report) through construction. The designer will need to carefully review all minutes of meetings, transcripts of public hearings, and the project study files to ensure all commitments have been listed. If there are any questions, the designer should contact the author of the Project Development Report. During plan development, the designer will also add to the file any commitments made to property owners or others affected by the project.

   When applicable, note the commitments in the project agreements and contract documents. The local agency is responsible for providing the district with a copy of their commitment file at the same time as the rest of the project file is submitted.

2. Discussion of Commitment Information. On Federal projects, commitments should be discussed at the bi-monthly coordination meeting with the FHWA (see Section 22-1.02), to ensure that all affected parties are aware of the nature and scope of the commitments.

   When a preconstruction conference is held, commitments should be discussed to ensure awareness and understanding of any special considerations affecting construction, and to emphasize the importance of follow-through as construction proceeds. Other parties affected by the commitments may be invited to attend the preconstruction conference.

3. Commitment Change. If it is discovered during project development, implementation, or maintenance that a change is required to a previous commitment or a commitment cannot be met, the designer must immediately notify the district and/or Central BLRS so that appropriate action can be taken. Failure to provide the appropriate notification and

review may result in project delays. All affected parties should be considered prior to making the final decision on the previous commitment.

The designer is responsible for updating the commitment file and providing documentation on the coordination with the affected parties and the ultimate decision on the proposed change.

4. Closeout. It is the local agency's responsibility to ensure and document that all commitments have been fulfilled. The local agency will provide the district with a copy of the commitment list at the final inspection after the project is completed. The district will forward a copy of the finalized commitment list to the Central BLRS.

22-2.10 Design Variances

In general, the designer is responsible for making a reasonable effort to meet the design criteria presented in this *Manual*. However, recognizing that this will not always be practical or cost effective, Section 27-7 discusses the process to evaluate and approve variances to the geometric design criteria. The process described in Section 27-7 applies to all local agency new construction, reconstruction, and 3R type projects using Federal funds.

Form BLR 22120 is used to document the justification and approval of variances that are necessary for the completion of the project. Complete the form in its entirety for all local agency Federal projects.

The information in the form may be presented at district project coordination meetings. Coordination meetings are discussed in Section 22-1.02. The minutes of the coordination meeting would serve as the documentation of the approval. Requests for variances may also be submitted in writing to the district. A written response to the request will then be sent to the local agency.

22-2.11 Project Development Report

22-2.11(a) General

A Project Development Report (PDR) is prepared to ensure environmental issues and design features are consistent with Federal, State, and local goals and objectives. A PDR is required for all projects that qualify for a Group II Categorical Exclusion; see Chapter 19. Use Form BLR 22110 as the PDR. Use Form BLR 33410 for LAPP projects.

22-2.11(b) Contents

The following information should be included in the PDR, when applicable:

1. Location. Include a narrative description of the project location along with a location map.

2. Description of Existing Conditions. Describe the existing facility (e.g., alignment, typical sections, bridges, railroad crossings, utilities) within the improvement. For existing railroad crossings, the PDR should document the number of trains per day, the existing warning devices, and the geometrics at the crossing. Also, describe the contiguous sections.

3. Design Traffic Data. Include the current ADT, the design ADT, the DHV when applicable, and the percent trucks.

4. Purpose/Need for Project. Discuss the purpose and need for the project.

5. Design Guidelines. Indicate whether the project is being designed using urban or rural design guidelines for new construction/reconstruction, or the 3R guidelines. Include the functional classification, the design speed, and the regulatory speed.

6. Description of Proposed Improvement. Include the following in the description of the proposed improvement:

    a. Roadway. The description should include a discussion of side slopes and the widths of through lanes, turning lanes, traffic control, non-motorized user facilities, parking lanes, and shoulders. Discuss any alignment changes and intersection improvements. Attach typical sections, plan and profile sheets, and intersection design studies, when appropriate.

    b. Structures. The degree of proposed bridge descriptions contained in the PDR will depend on the type of improvement. A bridge rehabilitation project will need to discuss more individual bridge elements needing improvement and possible alternatives for widening under traffic, but not specifics (e.g., beam types). A structure on new location might only require enough details necessary to set approximate roadway profiles, assess hydraulic impacts including streambed environment, and to develop a cost estimate. The recommended scope of work should address the approximate dimensions of the replacement structure envisioned, but not so precisely that configuration refinements resulting from subsequent hydraulic, soils, or structural-economic studies are restricted. This is necessary to determine approximate right-of-way requirements, assess environmental impacts, consider necessary hydraulic and flood plain effects, and to make a reasonable cost estimate. Chapter 36 provides guidance on the design of bridges and structures.

    c. Hydraulics (Drainage). The PDR should contain a summary of the preliminary hydrologic and hydraulic analyses where highway drainage and/or structures will significantly affect the design or cost of a project. Rehabilitations that have no history of flooding or high water problems may be handled with brief statements of past performance in the PDR with detailed hydraulic computations to be

completed in the design phase. Discuss the effects of restricted outlets, existing storm sewer capacities, and drainage constrictions (upstream or downstream) on highway drainage systems, particularly in rapidly developing urban areas. For additional guidance on hydraulic and drainage design issues, see Chapter 38 of this *Manual*, the *IDOT Drainage Manual*, and the *IDOT Water Quality Manual*.

d. Miscellaneous Highway Features. The PDR should reflect, as appropriate, other elements as follows:

i. Utilities. Describe any proposed modifications, changes, or multiple uses of right-of-way. Prior to beginning of work, a written agreement must be made between the local agency and each utility, defining the work responsibilities and estimate of cost. See Section 5-8 for guidance on preparing utility agreements and Section 10-4 for guidance on utility coordination.

ii. Railroads. The PDR must determine if crossings will be at-grade or grade-separated. This will be a collaborative effort between the local agency, IDOT, the affected railroad, and the Illinois Commerce Commission. In most cases for at-grade crossings, it will be appropriate in the preliminary stage to specifically determine the type and proposed location of warning devices at the crossing (e.g., automatic gates, flashing signals) and width of crossing surface. The Central BLRS will review and approve the plans, specifications, and estimates without prices for all railroad crossing improvements. Section 10-2.01(f) provides additional information on the coordination with railroads. Chapter 40 provides guidelines on the design of highway/railroad crossings.

iii. Lighting. Section 41-7 provides guidelines for highway lighting and illumination. In the PDR, describe proposed illumination levels including uniformity ratios and glare levels.

iv. Erosion and Sediment Control. Evaluate the need for erosion and sediment control measures. This may require additional right-of-way to accommodate erosion and sediment control implementation. See Section 41-10 for guidelines on the design and implementation of erosion and sediment control.

v. Hazardous Mailbox Supports. During the preparation of the PDR, the local agency should address the problem of hazardous mailbox supports. Document the existence of potentially hazardous mailbox supports and their locations in the PDR. Removal and replacement of mailboxes can be a sensitive issue and should be reviewed with the local postal authorities and the postal patron. The following evaluation process is required on Federal projects and may be used on other projects:

- Survey. Conduct an on-site survey to determine whether there are any hazardous mailbox supports within the clear zone of the project. Document these locations in the PDR. If there are no hazardous supports on the project, note this in the PDR.

- Notification. If a mailbox box support is determined to be hazardous, the local agency is responsible for notifying the postal patron by certified mail that their mailbox may be potential hazard. The letter should discuss the following issues:

  - type of hazard and the potential adverse safety effects,
  - potential personal liability to the property owner,
  - statement of the appropriate mailbox design issues (presented in Section 41-8),
  - the recommended appropriate safety design,
  - local agency's request to change the support to an acceptable design, and
  - local agency's request to meet with the owner to ascertain the property's owner's decision.

- Documentation. Ensure the following is documented in the project files:

  - copies of all certified letters,
  - meeting results,
  - any subsequent verbal or written responses, and
  - documentation of the local agency's effort to remove the hazardous mailbox.

  Summarize all decisions relative to the owner's decision, either agreeing or disagreeing to remove the hazardous support, in the PDR.

- Notification by Postmaster. If no response is received from a postal patron who has a hazardous mailbox support, or if the owner indicates that he/she does not wish to change the support, the local agency may contact the local postmaster and ask for the postmaster's help in getting the mailbox support removed. If the local postmaster is agreeable, the local postmaster has the authority to notify the patron in writing of the safety hazard of an existing support. Postal regulations require that box supports must bend or break away when struck by a vehicle and that supports are now readily available for purchase. The local postmaster can give the owner 30 days notice, and if compliance is not achieved, the postmaster has the authority to suspend mail delivery to the box.

- Project Field Reviews/Construction Phase. If a hazardous mailbox support is constructed or discovered after design

approval, use the above procedures and add the appropriate documentation to the files and reports.

Section 41-8 contains additional information concerning hazardous mailbox supports.

vi. Truck and Parking Restrictions. List any truck or parking restrictions or parking removal in the PDR.

vii. Mail Delivery. Indicate any mail delivery from a traffic lane.

viii. Airports. The PDR must indicate that the project will have no effect on airport operations. Section 10-6 discusses airport coordination.

ix. Traffic Control. Many traffic engineering elements are addressed during detailed design in the final plans (e.g., selection and location of traffic signs and pavement markings). However, as appropriate for the project scope of work, the PDR should discuss proposed traffic control, especially at intersections, and include justification of those traffic engineering elements (e.g., traffic signal and multi-way stop warrants). Chapter 39 provides guidance on several traffic engineering issues.

x. Sidewalks and Pedestrians. Describe the reasons for providing, or not providing sidewalks, and the coordination needed with local governmental units. See Section 41-6 for a discussion on sidewalks and ADA compliance. The PDR must contain a discussion on satisfying ADA requirements including, if applicable, the selection of accessible routes for disabled individuals.

xi. Bicycle Facilities. Identify the travel needs of bicyclists in the PDR. Chapter 42 provides guidelines for the placement and design of bicycle facilities.

xii. ADA. Section 41-6 discusses implementation of the *Americans with Disabilities Act* (ADA). The PDR must contain a discussion on satisfying ADA requirements including, if applicable, the selection of accessible routes for disabled individuals. Any intersection design study (see Section 10-2.02) prepared during the preliminary study must indicate the location of the curb-cut ramps to be provided. The PDR must discuss any request for a design exception from policies on accommodating disabled individuals and the justification for the request. The request must discuss the impact on the access route.

xiii. Geotechnical Considerations. Conduct preliminary studies in cooperation with soils specialists and geologists when these elements influence the location and/or design of a proposed improvement. In addition, the location of foundations for structures or high embankments may be an

important item in the highway location. See the *IDOT Geotechnical Manual* for information on geotechnical considerations.

xiv. Agreements. The PDR should document the need for any agreements with the State, other local agencies, consultants, railroads, and/or utility companies. Chapter 5 provides guidance on the preparation of these agreements.

xv. Maintenance Considerations. The designer should develop the PDR in cooperation with bridge and highway maintenance personnel who are responsible for the highway section under design. Section 25-2 provides additional guidance on maintenance issues.

7. Design Variances. List all design variances along with any approvals. Include Form BLR 22120. See Section 27-7 for additional information.

8. Cost Estimate. Prepare a cost estimate for the project including construction, utility adjustment, land acquisition, and engineering costs. For major projects requiring more than one construction contract, provide cost estimates for individual usable segments. Section 11-6 discusses the required information needed to document project costs.

9. Crash Analyses. The PDR should include, as appropriate, the following crash analyses to assist in demonstrating the need for a highway improvement:

a. Spot Map. Provide a crash spot map as basic crash information in the PDR. As applicable, include a comparison of the calculated project crash rates with the Statewide average crash rates for the same class of highway. Collision diagram summary sheet percentages also may be compared with Statewide averages.

b. High-Crash/Crash Pattern Analyses. During the preliminary study, identify High-Accident Locations (HAL), rates, and all crash patterns (e.g., fixed objects) at various sites throughout the project. Also, include schematic collision diagrams, results of field checks, crash analyses, and recommended countermeasures for these items, or provide a statement that no high-crash locations or other crash patterns that exist along the proposed improvement.

c. Wet-Pavement Crashes. Identify and analyze any wet-pavement crash clusters in accordance with the *Procedures for Identifying, Analyzing, and Improving Wet-Pavement Accident Locations Within Rehabilitation/Resurfacing Projects*. These procedures are discussed in the *Illinois Safety Improvement Processes Manual* available from the IDOT Bureau of Operations. Include friction numbers, if available, in the analysis of critical wet-pavement crash locations combined with the recommended traffic, existing geometric features, grooving, reprofiling, and/or high-friction resurfacing countermeasure alternative. Specify a high-friction resurfacing type and mix design to be used during the development of the final plans.

d. Time Period. Analyze the traffic crash data available for the most recent 3 years and update the data accordingly.

10. Right-of-Way Requirements. Describe the right-of-way acquisition including the existing land use, the total area required for permanent right-of-way, permanent easements, and temporary easements, the number of property owners affected, and anticipated effects on the remaining properties. Discuss any displacements to persons, businesses, and farms.

11. Environmental Issues. Discuss any involvement with environmental issues. Include the results of any environmental surveys. Include any signoffs and copies of other pertinent coordination. Discuss proposed mitigation measures and indicate any permit requirements.

12. Traffic Control and Alternative Routes During Construction. Include in the PDR a discussion on the development of a conceptual plan to accommodate traffic during construction. If the highway is to be kept open to traffic during construction or if detours or runarounds are involved, indicate this in the PDR. Discuss all feasible alternatives for handling traffic during construction and methods to eliminate or minimize pedestrian considerations. For additional guidance on traffic control devices during construction, see Chapter 39.

    When deciding on alternative routes during a road closure, several factors should be considered. Some of these factors include the type of pavement and ability for the alternative route to handle the additional load, the impact that the additional ADT would have on the traffic control at intersections and railroad crossings, the effect of larger vehicles have on the turning radii at intersections, and the coordination with the agencies having jurisdiction of the alternative routes. If a marked detour is provided during a road closure, all agencies having jurisdiction of the detour route must approve the detour signing.

    Before closing a road during construction, any affected emergency services, school districts, and post offices should be notified. It is recommended that these agencies be contacted prior to submitting the Project Development Report, and documentation of the contacts be included in the report.

13. Public Involvement. Summarize public involvement activities. Discuss any opposition to the project and how public hearing requirements are being fulfilled. Attach any property owner comments or signoffs.

14. Other Coordination. Attach minutes of the early involvement coordination meetings and applicable coordination letter with other agencies, utility companies, and railroads, as appropriate.

22-2.11(c) PDR Review

Preliminary reviews of the PDR may be accomplished by periodic trips to the district by representatives from BLRS and FHWA, when appropriate. A PDR prepared in accordance with current policies and reviewed at district coordination meetings by representatives from BLRS and FHWA, when appropriate, in most cases may be used for public involvement activities without advance submission to the Central BLRS. However, submit a PDR containing significant design deviations to the Central BLRS for approval of the variances before using it at any public involvement activities.

22-2.12 Design Reports

A design report will be required for all projects that require a separate environmental document or for which an ECAD was prepared. The purpose of a design study is to investigate all plausible alignments within the approved corridor. Public involvement activities and environmental studies are conducted concurrently with the design study.

The report must discuss the alternatives considered, but not studied, in depth with an explanation of why these alternatives were eliminated. For the final alternatives under consideration, include major design details and discuss the social, economic, and environmental advantages and disadvantages of these alternatives. The environmental impacts do not need to be discussed in detail in the design report, but should be summarized. Also, summarize the result of public involvement activities. The report must identify the recommended design alternative and the reason for its selection.

Additional guidance concerning design studies and reports are provided in Chapters 11 and 12 of the *BDE Manual*.

22-2.13 Approvals

22-2.13(a) Categorical Exclusion Concurrence

For projects requiring the preparation of a PDR, the Central BLRS will provide a written concurrence in a Group II categorical concurrence classification unless the project is a type for which approval responsibility has been delegated to the district. See Section 19-1 for a list of these types of projects. After the PDR has been reviewed, Categorical Exclusion concurrence will be given after environmental coordination has identified any involvement, there is an agreement on any mitigation measures, and, if necessary, after the FHWA has concurred in a Categorical Exclusion classification.

22-2.13(b) Design Approval

All projects that require the preparation of a design report will require design approval. Projects that require the preparation of a PDR will require design approval under the following circumstances:

- projects in urban or urbanized areas, when the project is located on a street functionally classified as an arterial or collector; or
- all other projects for which a public hearing was held or an opportunity for a hearing was offered.

Projects that are approved as a Group I Categorical Exclusion do not require design approval. Design approval will be given by the Central BLRS, unless delegation has been given to the district in accordance with Section 19-1, after environmental and public hearing requirements have been met. For projects classified as Categorical Exclusions and where no public hearing or opportunity for public hearing is required, design approval can be given with the Categorical Exclusion concurrence.

When the request for design approval is submitted to the district, the local agency is responsible for publishing a notice in the local newspaper. The notice should include a narrative description of the location and/or design, as submitted. Where practical, the inclusion of a map or sketch of that location or design is desirable. In the notice, indicate that maps or sketches, as well as other information concerning the design, are publicly available for review in the local agency's offices.

If a public hearing is held or offered, the local agency is responsible for publishing a notice that the design has been approved in a local newspaper within 10 days after receiving notice of the approval. The content of the publication will be the same as described earlier for the request for design approval notice.

22-2.13(c) Direct Approval

The Central BLRS Project Development Engineers have the authority to conduct some official actions in the districts and at coordination meetings. Specifically, these actions will consist of evaluating and approving, when satisfactory, requests for Categorical Exclusion determinations and design approvals for certain projects. Direct approvals are a means of expediting the processing phases.

Consider the following before requesting direct approval:

- A request for design approval has been published.
- The local agency has submitted the PDR (Form BLR 22110) or other design report.

- Projects that involve other than minor geometric revisions are not normally eligible for direct approval. Some projects with design deviations may still qualify for direct approval if prior concurrence for design deviations has been obtained from the Central BLRS.

22-2.14 Addenda to Project Development and Design Reports

All changes during the preparation of final plans or construction that affect the design features of an approved project must be submitted in the same manner as the first approval.

22-2.15 Reports for Local Agency Projects Involving a State Highway

The following procedures for processing and approval of Design Reports, Project Development Reports, and other related documents will apply for local agency projects involving a State highway.

22-2.15(a) State Highway System

The following applies with regard to Jurisdictional Transfers:

1. No Jurisdictional Transfer. Discuss all projects at district coordination meetings before finalizing and submitting any reports. Reports prepared by the local agency or their consultant should be submitted to the Central BLRS for review, approval, or information. When the need for a design exception is discovered at the local coordination meeting on routes under State jurisdiction, the Central BLRS will coordinate and discuss this information with BDE prior to approval action. If a local agency is preparing the report for a State highway on the National Highway System (NHS), BDE will review the highway geometrics and cross section design during the development of preliminary alternatives. Once the geometrics and cross section designs are agreed to, the Central BLRS will review the report and process it accordingly.

2. Jurisdictional Transfer to a Local Agency. Submit the PDR to the Central BLRS for review and approval. When the State is providing matching funds, the Central BLRS will coordinate the design requirements with BDE prior to approval. It is imperative that these projects be discussed at the district coordination meetings. This will allow BDE and the Central BLRS to become aware of proposed design features and costs and to determine if the project is still the same as originally discussed during programming meetings.

22-2.15(b) Combined Systems

For projects that have substantial work on both highway systems, and the local agencies and their consultants prepare reports, process the PDR through the district to the Central BLRS. The Central BLRS will coordinate any design requirements with BDE.

22-2.15(c) Modified Procedures

Where special or unusual situations arise during project development, modified review and processing procedures may be necessary. In these cases, the local agency, district, Central BLRS, and BDE should agree on the modified procedures to use.

22-2.16 Interstate Access Studies

BDE and the FHWA must approve all proposed new access points to the Interstate system and all proposed changes in interchange configurations, even if the number of access points does not change. For changes to access for non-Interstate fully access controlled facilities, BDE must approve any changes to access. This applies to any change regardless of the funding source.

The FHWA revised access approval constitutes a Federal action and, as such, NEPA procedures must be followed. Compliance with NEPA procedures should proceed concurrently with the analyses to determine engineering acceptability and feasibility.

An Access Justification Report must be prepared to confirm the future safety and traffic operations along the Interstate corridor. The required contents of this document can be found in Chapter 37 of the *BDE Manual*. The report is submitted to BDE for review and approval by IDOT and, when required, by the FHWA.

22-3 RIGHT-OF-WAY

22-3.01 General

The local agency develops preliminary right-of-way cost estimates and relocation assistance plans as necessary and in accordance with the *IDOT Land Acquisition Policies and Procedures Manual*.

Preliminary right-of-way costs are determined on a per acre (hectare) basis, or on a parcel-by-parcel basis, and include costs for persons displaced as a result of a proposed highway improvement (e.g., relocation, replacement housing). For major projects, a preliminary relocation plan is developed to estimate housing needs and available resources for persons displaced by a highway project. The steps in the land acquisition process are shown in the *IDOT Land Acquisition Policy and Procedures Manual*.

When publicly owned facilities will be acquired, a decision should be made at the completion of the PDR to either pay the market value for the property or to functionally replace it. Guidance on this issue is in the *IDOT Land Acquisition Policy and Procedures Manual*.

In addition to securing cost estimates and relocation plans through the Land Acquisition Section, the designer should seek their assistance when determining special alignment and design features to avoid adverse property severance, undesirable access features, unnecessary damages, and odd-shaped takings. Also, consider existing property lines and the value of property to avoid excessive right-of-way costs. Often, alternative locations and designs can be selected with lower right-of-way costs.

When right-of-way is acquired for Federal-aid projects, full compliance with Title II and III of the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970* is mandatory. There must be full compliance with the requirements of Title II and III on Federal-aid local agency projects whether or not Federal funds are used to pay a part of the right-of-way costs.

22-3.02 Definitions

The following definitions apply:

1. Right-of-Way. Land acquired for permanent ownership by the local agency for activities that are the responsibility of the local agency for an indefinite period of time. The local agency obtains the fee simple title to the property. Right-of-way is typically acquired for roadways, roadsides, etc.

2. Permanent Easements. Easements acquired with the perpetual right to construct and maintain a public highway and incidental facilities over and across the surface of lands. Types of permanent easements include:

- utility easements,
- storm sewer easements, and
- scenic easements.

3. Channel Easements. Easements acquired specifically for stream channel construction and maintenance, which provides the local agency with a permanent right of ingress and egress. The property owner relinquishes the right to modify the channel dimensions (e.g., slopes).

4. Temporary Construction Easement. Easements acquired for the legal right of usage by the local agency to serve a specific purpose for a limited period of time (e.g., construction, maintenance and protection of traffic during construction). Once the activity is completed, the local agency yields its legal right of usage. Although located outside or beyond the proposed highway right-of-way lines, all temporary construction easements or permits are considered as right-of-way parcels and are to be reported as right-of-way required for construction of a project for purposes of obtaining authorization to advertise the project for letting.

   Acquisition of temporary construction easements should be accomplished in the same manner as the appraisal and acquisition of a fee-taking or a permanent easement with respect to appraisal and acquisition requirements. Temporary easements should always be obtained for detour roads, borrow pits, removal of remainders of buildings situation partially on acquired right-of-way, channel changes (requiring infrequent or no future maintenance), etc., where the specified use is essential to completion of construction of the proposed improvement.

5. Temporary Use Permit. The temporary use permit is used to describe a license acquired by a local agency to do a particular act or series of acts on the land of another without possessing any estate or interest in the land. A property owner may terminate the permit at any time.

   Acquisition of temporary use permits should be confined to those areas of construction such as for sloping of lawns, extending back slopes beyond the proposed highway right-of-way lines, reconstruction of driveways, where a nominal amount of money is involved, the probability of termination is minimal and the effect of termination would not jeopardize completion of the highway improvement. When acquired as the only parcel from a property owner, it is not necessary for the appraiser to offer the owner, or designated representative, the opportunity to accompany the appraiser on the inspection of the property, nor is it necessary to furnish the owner with a written Summary of Right of Way Acquisition and Offer Purchase.

Although located outside or beyond the proposed highway right-of-way lines, all temporary construction easements or permits are considered as right-of-way parcels and are to be reported as right-of-way required for construction of a project for purposes of obtaining authorization to advertise the project for letting.

22-3.03 Title II – Uniform Relocation Assistance

The purpose of this Title is to establish a uniform policy for fair and equitable treatment of persons displaced as a result of Federal and Federally assisted programs to prevent disproportionate injuries as a result of programs designed for the benefit of the public as a whole.

Wherever the acquisition of real property for a project will result in the displacement of any person, the local agency is responsible for providing a relocation assistance advisory program. The local agency's relocation assistance advisory program must be in accordance with requirements of the *IDOT Land Acquisition Policies and Procedures Manual*. If the Relocation Assistance and Payments Program is to be administered by the local agency, the program must be approved prior to the public hearing or commencing negotiations for the property.

22-3.04 Title III – Uniform Real Property Acquisition Policy

In order to encourage and expedite the acquisition of real property by agreements with owners, to avoid litigation, relieve congestion in the courts, to ensure consistent treatment for owners, and to promote public confidence in land acquisition practices, a local agency should follow the policy requirements contained in the *IDOT Land Acquisition Policy and Procedure Manual*.

22-3.05 Certified Appraisers

Where Federal funding is used in any phase of the project and a detailed appraisal is required, the appraiser must be certified in accordance with the *Financial Institution Reform Recovery and Enforcement Act.* Local agency staff appraisers and reviewers will not require certification to prepare or review detailed appraisals, but their qualifications must be consistent with the level of difficulty of the assignment. If a fee appraiser or fee reviewer is required for a detailed appraisal, their selection must meet the following classifications:

1. State Certified Residential Real Estate Appraiser. The appraiser is limited to appraising residential property containing one to four units and vacant single family land zoned residential that will accommodate no more than one unit.

2. State Certified General Real Estate Appraiser. The appraiser is allowed to appraise any type of real estate.

A detailed appraisal is defined as a complex appraisal problem that requires thorough documentation to support the values and conclusions contained in the report. An appraisal is considered detailed under the following circumstances:

- Where damages to the remainder, excluding non-complex cost to cure items (e.g., fence relocations, sign relocations) exceed $10,000.

- The acquisition involves the acquisition of a principle building.
- On acquisitions involving only land or land with minor improvements, a staff reviewing appraiser will determine if the appraisal problem is complex. Examples of complex appraisal problems include:
    - o highest and best use is different than present use,
    - o a complex specialty report is required,
    - o market data is inadequate and consideration must be given to the cost and/or income approaches as appropriate, and/or
    - o there is a complicated valuation problem involved.

22-3.06 Early Acquisitions

In general, no new right-of-way can be acquired for a project prior to completion of the environmental process and design approval. However, under some circumstances this requirement may be waived and will not jeopardize Federal-aid participation in future project costs. Early acquisition may be acceptable if it is shown that the acquisition is necessary to:

- alleviate particular hardship to a property owner, on their request, in contrast to others because of an inability to sell the property (hardship acquisitions); and/or
- prevent imminent development and increased costs of a parcel that would tend to limit the choice of highway alternatives (protective buying acquisitions).

In addition, the following requirements must be met:

- The acquired property must not influence the need to construct the project or the selection of the location of the project.
- The acquisition must comply with the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as amended.
- The acquisition must comply with Title VI of the *Civil Rights Act of 1964*.
- The acquisition must not include lands protected by Section 4(f) of the *Department of Transportation Act*.
- The final project must meet all requirements for a normal Federal-aid project (e.g., compliance with the *National Environmental Policy Act*, the *Historical Preservation Act*, the *Endangered Species Act*, the *Wetlands Executive Order*).
- Advance acquisition must not be used to circumvent Federal laws or regulations.

Because acquiring large quantities of right-of-way in advance of environmental and design approvals could likely influence project location or need, the local agency should be aware that any full-scale acquisition is done at their own risk.

22-3.07 Land Acquisition Donations

A donation of right-of-way can be accepted after an owner has been fully informed of their right to receive just compensation. The local agency is not required to appraise the property or to offer compensation. Process donations only after the environmental study of the project is completed and design approval received.

22-3.08 Documentation and Certification

All property within limits of the proposed highway improvement is to be cleared either by acquisition, easement, or permit, before receiving authorization to proceed to letting. Any deviation in this policy will require submittal of a written statement by the local agency to the district indicating the location and reasons for the deviation before authorization will be issued by the FHWA.

The local agency is responsible for documenting and maintaining their files to provide the necessary evidence that they have complied with the provisions of the *Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970*, as outlined in Section 22-3. The local agency's file must be available and open to inspection by IDOT and the FHWA for a period of 3 years after the FHWA's payment of the final voucher on the project.

The district must certify prior to the State's advertising for bids that the local agency has acquired the necessary right-of-way and has provided relocation assistance, if applicable, in accordance with the requirements in Section 22-3.

22-3.09 Closing Right-of-Way Project

The local agency, upon completing the final transaction on a right-of-way project, will ensure that the proper certification forms have been completed and sent to IDOT for certification and acceptance.

Consider the following when closing right-of-way projects:

1. Final Invoice. Within 90 days after certification, submit a final invoice for the right-of-way cost to the district.

   Statement of Cost of Right-of-Way. Include a Statement of Cost of Right-of-Way, see Figure 22-3A, with a copy of the appropriate cancelled checks with the submission of any progress or final invoice to provide documentation for the cost shown. Include the following in the Statement of Cost of Right-of-Way:

   - parcel number;
   - cost of parcel;

- cost of excess land, if any, acquired from same ownership;
- credits by parcel or project; and
- incidental expense by parcel or project.

2. State Job Completion Notice - Form AA-336. Upon receipt of the final invoice, the district will prepare Form AA-336 to notify the appropriate offices of the project completion. Retain copies of all invoices and supporting documentation for auditing purposes for a period of 3 years after payment of the final voucher. Additional support documentation that is to remain on file includes:

   - right-of-way maps or plans showing the right-of-way authorized and the actual area acquired, including parcel identification numbers;
   - property lines of area actually acquired; and
   - any other pertinent data affecting cost (e.g., structures, improvements, fences).

3. Audits. IDOT will audit invoices in accordance with FHWA-approved auditing procedures. Upon completion of the audit and resolution of any findings, IDOT will close out the Contract Obligation Document and submit a final voucher to the FHWA.

4. Form BLR 13510. When MFT or TBP funds are used to pay a portion of the cost, the local agency is required to submit Form BLR 13510 upon completion of the project. This will close out the MFT or TBP portion of the project.

COLUMBUS DRIVE EXTENSION

River to Huron Street
F.A.P. Route 525
Federal Project M5000(55)
City Section 80-B9003-00-RP
State Job No. R-88-003-77
Cook County

COST OF RIGHT OF WAY					
Parcel	**Parcel Cost**		**Incidental Expenses**		**Total**
Parcel 1 — North side of Grand Avenue South side of Ohio Street and West side of Fairbanks Court Purchased from the American National Bank and Trust Company of Chicago Trust No. 39369		$282,000.00	Appraisals and Title Costs	$6,910.46	
	Interest on Judgment Order	4,172.05			
	Court Costs	17.00			
	TOTAL	$286,189.05	TOTAL	$6,910.46	$293,099.51
Parcel 2 — 541 N. Fairbanks Court Purchased from 541 Fairbanks Corporation		$250,000.00	Appraisals and Title Costs	$8,663.45	
	Interest	2,095.89			
	Court Costs	13.00			
	TOTAL	$252,108.89	TOTAL	$8,663.45	$260,772.34

SAMPLE STATEMENT OF COST OF RIGHT-OF-WAY

Figure 22-3A